

AMENDMENTS TO THE SPECIFICATION

The following paragraphs will replace all prior versions of these paragraphs in the application:

PARAGRAPH 108:

“[0108] In a preferred embodiment of the invention, enhancer 28 processes digital image output 26 to form an enhanced contrast representation 27 of electrical circuit 12 that is characterized by synthetically enhanced contrast between predetermined portions of electrical circuit 12, such as between conductors 32 and substrate 30. A preferred method of enhancing contrast includes redefining substrate portions 36 in the digital image output 26 as opaque substrate portions, such as substrate portions overlaying conductors 34 in an image of electrical circuit 12. Such redefinition thus generally eliminates any distinction between substrate portions which overlay conductors 34 and substrate portions 36 which do not. The enhanced contrast representation output of enhancer 28 preferably is employed in representation generator 24 to override or to select portions of digital image output 22, or portions of a result of an intermediate stage of processing digital image output 22, in the course of generation of enhanced representation 29. Alternatively, enhancer 28 may be obviated and the digital image output 26 may be supplied directly as an input to representation generator 24. ”

PARAGRAPH 109:

“[0109] It may thus be appreciated that enhanced representation 29 is generated from at least two optical inputs, here digital image inputs 22 and the output 27 of

enhancer 28, each containing generally spatially coincident but different image data, wherein one of the image inputs controls the other input. Preferably the use of enhanced representation 29 in accordance with a preferred embodiment of the present invention improves defect detection capabilities in an automated optical inspection system compared to conventional automated inspection systems.”